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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,209	08/07/2001	Sarath D. Gunapala	06618-379002	1843

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EXAMINER

BAUMEISTER, BRADLEY W

ART UNIT

PAPER NUMBER

2815

DATE MAILED: 12/06/2001

Please find below and/or attached an Office communication concerning this application or proceeding.



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3

DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

### OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 8/7/01

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

- ☐ Claim(s) 1 is/are pending in the application.  
Of the above, claim(s) 1 is/are withdrawn from consideration.
- ☐ Claim(s) 1 is/are allowed.
- ☐ Claim(s) 1 is/are rejected.
- ☐ Claim(s) 1 is/are objected to.
- ☐ Claim(s) 1 are subject to restriction or election requirement.

#### Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☒ The drawing(s) filed on 8/7/01 is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

- ☒ Notice of Reference Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

Art Unit: 2815

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because of the following informalities/clerical errors.

Correction to these and any other errors not specifically mentioned is required.

a. FIG 1 sets forth "GaAs/Algatts Mqw Layers." "GaAs/AlGaAs MQW Layers" is presumed to be intended.

b. FIG 1 sets forth "Jucidout Radiation" and "Slotted Fluid." These terms are not in the specification and would not be understood by one of ordinary skill in the art.

c. FIG. 1 depicts layer 112--described in the specification as indicating the heavily doped contact layer--being formed on substrate 101, and having each column's layer 112 being fully isolated from the other stacks by the air gap which extends into substrate 101. However, FIG 1 also recites "Heavily Doped GaAs Contact Layers" with arrows pointing to top contact 116 and to substrate 101. It is unclear whether each bottom contact 112 is fully isolated and the transparent substrate is therefore also electrically conducting, or alternatively if each column's bottom contact is not electrically isolated from the others.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit:

3. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites that the stack has "a plurality of alternating quantum-well layers formed in parallel over said first conductive contact layer..." The claim does not recite with what the quantum wells are alternating. For example, this limitation might mean that the wells are alternating with barriers, thereby being broad enough to read on either single or multi-color detector stacks. Alternatively, the limitation might mean that quantum wells responsive to different wavelengths are alternately stacked (the presence of the barriers being inherently presumed) and therefore limit the claim to read on only multicolor detector stacks. One skilled in the art would not be reasonably apprised of the objective metes and bounds which the claim intends to cover.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit:

5. Insofar as definite, claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Choi '015. Choi discloses a periodic array of quantum well stacks formed on a transparent substrate. The isolated stacks include heavily doped-top contact 221 and bottom contact 222.

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Costard et al. '126
- b. Bandara et al. '538

### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Art Unit:


8. Claim 1 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 6,271,537. Although the conflicting claims are not identical, they are not patentably distinct from each other because the present claim is broader than or generic to all of the claims of the '537 patent. It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the invention as presently claimed since it has been held that omission of elements and their respective functions in a combination where the remaining elements perform the same function as before involves only routine skill in the art. In *re Karlson*, 136 USPQ 184.

#### INFORMATION ON HOW TO CONTACT THE USPTO

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, **B. William Baumeister**, at (703) 306-9165. The examiner can normally be reached Monday through Friday, 8:30 a.m. to 5:00 p.m. If the Examiner is not available, the Examiner's supervisor, Mr. Eddie Lee, can be reached at (703) 308-1690. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

B. William Baumeister

December 1, 2001



EDDIE LEE  
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